

**CONFIDENTIAL**

NPIC/TDS/D-824-67

3 May 1967

Declass Review by NGA.

MEMORANDUM FOR: Chief, Procurement Division, OL  
THROUGH : Chief, Support Staff, NPIC  
SUBJECT : Advanced Stereo Rhomboid Attachment

1. On 15 June 1966, the Agency contracted with [ ] for the fabrication of 186 Advanced Stereo Rhomboid Attachments for the Zoom 70. Subsequently, 15 additional units were added to the procurement increasing the total quantity to 201 units.

2. One of the contract clauses required the Contractor to produce a pre-production unit for inspection and evaluation prior to the production of the remaining instruments.

3. The pre-production unit has been fabricated and evaluated. As shown in the attachment, it performs to the technical specifications and should now be considered acceptable. It is, therefore, recommended that the Contractor be notified of the acceptance to permit them to produce the remaining units.

[ ]  
Colonel, USAF

Assistant for Technical Development, NPIC

Attachment:  
As stated

## Distribution:

Orig & 1 - Addressee  
1 - NPIC/SS  
1 - NPIC/TD/A  
1 - NPIC/TDS/DS  
✓ 2 - NPIC/TDS/DS/ESB

NPIC/TDS/ [ ]

(3 May 67)

GROUP 1  
Excluded from automatic  
downgrading and  
declassification

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**CONFIDENTIAL**Attachment to  
NPIC/TDS/D-824-67**TEST AND EVALUATION OF THE 2X PRE-PRODUCTION  
ADVANCED STEREO RHOMBOID ATTACHMENT**

1. The pre-production Advanced Stereo Rhomboid Attachment was tested by the Equipment Performance Staff/TDS and was found to have the following characteristics.

**2X Wide Span Pre-Production Mod.****Separation of Fields**

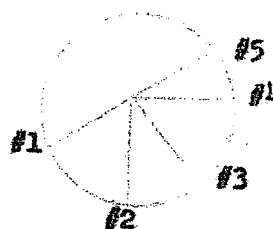
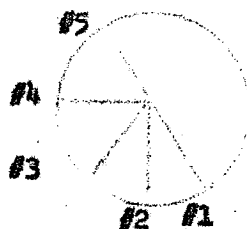
|         |               |          |
|---------|---------------|----------|
| Minimum | 'X' Direction | 39.5 MM  |
| Max     | 'X' Direction | 230.5 MM |
| Max     | 'Y' Direction | 104.5 MM |

**Fields of View with 10X Wide Field Eyepieces**

| <u>Zoom Setting</u> | <u>Limits</u> | <u>L.H.</u> | <u>R.H.</u> |
|---------------------|---------------|-------------|-------------|
| 0.7X                | 10.91-12.0    | 11.5 MM     | 11.6 MM     |
| 1.0X                | 9.1 -10.0     | 9.5 M       | 9.8 MM      |
| 2.0X                | 4.5 - 5.0     | 4.7 M       | 4.7 MM      |
| 3.0X                | 3.04- 3.35    | 3.1 M       | 3.1 MM      |

**Rhomboid Magnification Limits 2.0 - 2.2X**

|         | <u>Pod</u> | <u>Pod &amp; Rhomboid</u> | <u>Rhomboid</u> |
|---------|------------|---------------------------|-----------------|
| 0.7X    | .7         | 1.4X                      | 2.0             |
| RH 3.0X | 3.0        | 6.2X                      | 2.07            |
| 0.7X    | .7         | 1.5X                      | 2.01            |
| LH 0.3X | 3.0        | 6.2X                      | 2.07            |

**Resolution (On Axis) with 20X W.F. Eyepieces @ 3X with 50X Reduction Res. Chart**R.H.  
315 L/MML. H.  
280 L/MM**Run out (Arrow Indicates Direction of Rhomboid)**LeftRight**CONFIDENTIAL**

TARGET OFF CENTER

Pos. # 1 .4 MM  
Pos. # 2 .2 MM  
Pos. # 3 .25 MM  
Pos. # 4 .2 MM  
Pos. # 5 .3 MM

Pos. # 1 .5 MM  
Pos. # 2 .4 MM  
Pos. # 3 .3 MM  
Pos. # 4 .55 MM  
Pos. # 5 .5 MM

\*\* (.05 MM out of circle)

2. Because these characteristics meet the performance specifications, the instrument should be considered acceptable.

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